

MEMOIR ON A FEW HETEROPTEROUS HEMIPTERA
FROM EASTERN AUSTRALIA.

BY G. W. KIRKALDY, F.E.S.

(Plate xliii.)

This memoir records the Heteroptera collected by Mr. A. Koebele and Dr. R. C. L. Perkins in Queensland, and by Mr. Koebele in New South Wales. These expeditions were carried out under the auspices of the Hawaiian Sugar Planters' Association at Honolulu, for the purpose of discovering and forwarding predators and parasites for the control of certain insect pests of sugar cane in the Hawaiian Islands; and the resulting collections are preserved in the cabinets of the Division of Entomology. The Homoptera have already been worked out.* The Heteroptera were not specially collected, and were merely a side issue; nevertheless I am able to add, as I believe, seven new genera and twenty-five new species.

The Plate has been prepared by Mr. W. E. Chambers, Illustrator of the Station.

The captures are as follows, novelties in italics:—

CIMICIDÆ: *Stictocarenum* sp., *Panaetius lobulatus*, *Cuspicona thoracica*, *Testrica rudis*.

PYRRHOCORIDÆ: *Syncrotus circumscriptus*.

GEOCORIDÆ: *Graptostethus cardinalis*, *Cymus vulturinus*, *Nysius vinitor*, *Phaenacantha australiæ*, *Pachygrontha austrina*, *Phlegyas vulturinus*, *Macropes anthropophagorum*, *Oxycarenum lifuanus*, *Geocoris roseobistriatus*, *G. capricornutus*, *G. lubra*,

* 1906, Bull. Ent. Hawaiian Sugar Planters' Assoc. i. 269-479, Pl.xxi.-xxxiii.; 1907, *op. cit.* iii., 1, Pl.i.-xx. and figs.

Germalus kurândæ, *Botocudo ornatulus*, *Orthoea sidnica*, *O. pacifica*, *Vulturina albo-notata*, *Thaumastotherium australicum*.

TINGIDÆ: *Serenthia vulturina*, *Hypsipyrgias telamonides*, *Epimixia alitophrosyne*, *Teleonemia pacifica*, *T. vulturina*.

CORRIGENDA.

The author's request for the following substitutions to be made was not received until after the sheets had been printed off. Special attention is accordingly directed to them :—

p.768, line 23 }
p.770, line 6 } For *GEOCORIDÆ* read *MYODICHIDÆ*.

p.769—For *Thaumastotherium australicum* read *Thaumastocoris australicus*.

p.777, line 2—For *THAUMASTOTHERIINÆ*, sub-fam. nov. read *THAUMASTOCORINÆ*, sub-fam. nov.

p.777, line 14—For *THAUMASTOTHERIUM*, gen. nov. read *THAUMASTOCORIS*, gen. nov.

p.778, line 10—For *T[HAUMASTOTHERIUM] AUSTRALICUM*, sp. nov. read *T[HAUMASTOCORIS] AUSTRALICUS*, sp. nov.

p.788, line 23—For *Thaumastotherium australicum* read *Thaumastocoris australicus*.

4. T. RUDIS (Germar).

Hab.—N.S.W.: Sydney (Jan., Feb.; Koebele). Previously recorded from South Australia also.

lituanus, *Geocoris roseobistriatus*, *G. capricornutus*, *G. lubra*,

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TINGIDÆ: *Serenthia vulturina*, *Hypsipyrgias telamonides*, *Epimixia alitophrosyne*, *Teleonemia pacifica*, *T. vulturina*.

NABIDÆ: *Alloeorhynchus flavolimbatus*, *Gorpis cribraticollis*, *Acanthobrachys virescens*.

REDUVIIDÆ: *Ptilonemidia plumifer*.

GERRIDÆ: *Rhagovelia australica*.

ANTHOCORIDÆ: *Triphleps persequens*.

CLINOCORIDÆ: *Clinocoris lectularius*.

MIRIDÆ: *Eurocrypha thanatochlamys*, *Cysteorrhacha cactifera*, *Helopeltis australica*, *Synthlipsis chambersi*, *Paracalocoris austrinus* (and a few other solitary Mirids, which I cannot determine at present).

NAUCORIDÆ: *Ochterus marginata*.

CORIXIDÆ: *Micronecta annæ* var. *pallida*, *M. micra*.

CIMICIDÆ.

STICTOCARENUS Stal.

1. S.sp.?

Hab.—N.S.W.: Sydney (Jan.; Koebele).

PANAETIUS Stal.

2. P. LOBULATUS Stal.

Hab.—Q.: Kuranda (Perkins); N.S.W.: Sydney (Jan.; Koebele).

CUSPICONA Dallas.

3. C. THORACICA (Westwood).

Hab.—N.S.W.: Sydney (Jan.; Koebele). I have it also from Victoria, in my own collection.

TESTRICA Walker.

4. T. RUDIS (Germar).

Hab.—N.S.W.: Sydney (Jan., Feb.; Koebele). Previously recorded from South Australia also.

PYRRHOCORIDÆ.

SYNCROTUS Bergroth.

4A. S. CIRCUMSCRIPTUS Bergroth.

Hab.—Q.: Kuranda (June; Perkins); a single male measuring 6 mill., and agreeing fairly with Bergroth's description.

GEOCORIDÆ.

GRAPTOSTETHUS Stal.

5. G. CARDINALIS (Stal).

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

CYMUS Hahn.

6. C. VULTURNUS, sp.nov.

Pale brownish-yellow, scutellum and anterior part of pronotum, etc., tinged with ferruginous; keels on pronotum and scutellum clear pale yellow. Tegmina pale yellow, apical margin of corium narrowly fuscous; membrane hyaline. Fourth segment of labium black. Second segment of antennæ longer than the first, which reaches beyond the head, and a trifle longer than the fourth; third equal to second and fourth together. Length $4\frac{1}{2}$ mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

Allied to *C. tabidus* Stal, but larger, and the second segment of the antennæ a little longer than the fourth.

NYSIUS Dallas.

7. N. VINITOR Bergroth.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele). Also from New South Wales and Victoria; and recently introduced into the Hawaiian Islands.

PHAENACANTHA Horvath.

8. P. AUSTRALÆ, sp.nov.

Closely allied to *P. ambigua* Horv., but differing as follows: head distinctly wider than pronotum, and pallid except for two

narrow lines from antennæ to ocelli; fourth segment of antennæ longer than third. Scutellar spine about 70°. Length 7½ mill.

Hab.—Q.: Kuranda (August; Perkins).

PACHYGRONTHA Germar.

9. *P. AUSTRINA*, sp.nov.

Pale brownish-yellow, closely punctured on head, thorax, and tegmina (except membrane) with brown or black; lateral margins of pronotum very narrowly, and a line down the middle of the pronotum and scutellum, smooth, pale yellow. Eyes, last segment of rostrum, and a median line along the last sternite, blackish. Antennæ brownish-yellow, somewhat fuscate. Meso- and metasterna medianly dark fuscous. Membrane hyaline. Legs brownish-yellow, thickly speckled with blackish-brown. Sternites ferrugineo-testaceous; lateral margins widely, and apical third, fuscous. First segment of antennæ much longer than the second; second subelavate apically, much longer than the third, which is twice as long as the fourth, the four together a little longer than the entire body. Tegmina not quite reaching to the apex of the abdomen. Fore femora with mixed spines. Length 10 mill.

Hab.—Q.: Kuranda (August; Perkins).

PHLEGYAS Stal.

10. *P. VULTURNUS*, sp.nov.*

Apparently allied to *P. burmanus* Distant, from which, judging by the figure and the meagre description, it differs by the pronotum being strongly punctured, with the central keel rather indistinct, and the fore femora spinose. Blackish; median part of vertex across, anterior margin of pronotum narrowly in the middle, and a small irregular area behind that (divided by the dark keel), fore femora dorsally (usually), fore tibiæ and tarsi

* If Distant's figure of the Mexican *P. tropicalis* be correct, the latter is certainly not congeneric with *P. burmanus*.

(mostly), antennæ, labium, etc., reddish-brown or yellowish-brown, the appendages somewhat varyingly suffused with fuscous. Scutellum red-brown, posteriorly more yellowish, the anterior angles and a median spot anteriorly, blackish. Tegmina pale brownish-yellow, strongly punctured with honey-yellow and brown, a fuscous brown spot near apex of corium, and another sometimes at inner apical angle. Sterna and sternites black, a wide interrupted stripe down the pleura medianly, the ambulacra, etc., pale red-brown. Sternites medianly pale yellowish-brown, the pleurites the same, with blackish-brown spots at intervals. The whole underside strongly punctured. Middle and hind legs pale brownish-yellow; basal three-fourths of femora more or less blackish-brown; tibiæ incompletely ringed with blackish-brown near the base and near the apex, tarsi more or less fuscous, claws black. Labium reaches to about the base of the prosternum. Antennæ 8, 17, 18, 22. The fore femora are rather more strongly incrassate than in *P. burmanus*, and are armed with two colourless longer spines and several darker ones of varying lengths. Length $3\frac{7}{8}$ -4 mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

Sometimes the black hue is more overspread, especially on the legs.

MACROPESES Motschulsky.

11. M. ANTHROPOPHAGORUM, sp.nov.

Reddish-brown, covered with short, pale yellow hair; basal half of pronotum pale, except at posterior angles. Eyes and two apical segments of labium blackish. Tegmina brownish-yellow with a clearer area along the middle, membrane hyaline with fuscous veins. Ambulacra, tibiæ and tarsi brownish-yellow. First segment of antennæ reaching as far as the apex of the head, 8, 10, 8, 15. Labium not reaching quite so far as the fore coxæ. Posterior margin of pronotum roundly emarginate. Tegmina not nearly reaching to the middle of the abdomen; membrane longer medianly than the corium, roundly truncate apically. Length $4\frac{1}{2}$ mill.; pronotal width $\frac{4}{5}$ mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

The colour and the short labium and tegmina will distinguish this at once.

OXYCARENUS Fieber.

12. O. LIFUANUS Kirkaldy.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele). Originally described from Lifu, into which it is perhaps a recent introduction.

GEOCORIS Fallén.

13. G. ROSEOBISTRIATUS, sp.nov.

Pale ochraceous; eyes, ocelli, three longitudinal percurrent (the two lateral angularly convergent) lines on vertex, apical half of second and of third segments of antennæ, six longitudinal percurrent lines on pronotum, scutellum medially, pleurites, an oblique line on genæ, etc., rose-red. Pronotum fuscously punctured, an opaque area subanteriorly (with a transverse faint fuscous line), and rather more sparsely punctured posteriorly. Tegmina hyaline, yellowish-tinged, corium with three rows of fuscous punctures. Abdomen blackish (except as mentioned above). Labium reaching to about the middle trochanters, first two segments subequal. Antennæ 9, 20, 15, 17. Hind margin of pronotum about one-seventh wider than the head. Length 5 mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

In very bad condition, but so distinct that I have ventured to describe it.

14. G. CAPRICORNUTUS, sp.nov.

Rather elongate; shining black; underside of head (except basally at the side), antennæ (except the fuscous base of the third, and apical five-sixths of the fourth), legs, pleurites (except the incisures), a sublateral streak down the basal half of the corium, and a broad stripe down the middle of the posterior three-fourths of the scutellum, pale yellow. Labium brownish-yellow. Ocelli red. Eyes dark fuscous, paler ventrally. Membrane dark smoky. Head one-eighth wider than the pronotum.

Antennæ 13, 27, 23, 28. Labium reaching to the apex of the middle coxæ. Pronotum punctured, a subanterior area on each side and the posterior margin lævigata. Anterior and lateral margins of the scutellum punctured. Clavus with a close row of punctures along the corial margin. Corium with the same along the claval margin, turning out a little posteriorly, and also a row near the lateral margin, and scattered feebler punctures apically. Length $4\frac{1}{2}$ mill.

Hab.—Q.: Kuranda (August; Perkins).

15. G. LUBRA, sp.nov.

Head, pronotum, scutellum and under side black. Anterior margin of head (except medianly), postero-lateral angles of pronotum, tegmina, labium, legs, orifices, ambulacra, postero-lateral margin of metasternum, spots on pleurites, etc., testaceous, passing into pale ochraceous. Eyes dark fuscous anteriorly, reddish-fuscous posteriorly. Basal three-fourths of first and of second segments of antennæ dark fuscous, the rest testaceous. Membrane cinereo-hyaline. Pronotum very closely punctured except for a subanterior shining, somewhat swollen, smooth area on each side. Scutellum closely punctured, feebly keeled. Tegmina punctured much as in *G. kurandæ*, but with two subparallel rows on corium inwardly instead of one. Length 3 mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

GERMALUS Stal.

16. G. KURANDÆ, sp.nov.

♂. Ochraceous, eyes and ocelli reddish. Vertex with a short, thin, dark, longitudinal line apical of each ocellus, and two short median subcontiguous lines apically. Extreme apex of labium blackish. Antennæ with the third, apex of second and base of fourth segments sanguineous. Pronotum with a fuscous line down the middle, and a very short sublateral one on each side (only on the basal fourth), also the postero-lateral angles fuscous; pronotum closely punctured with dark fuscous, except the two anterior lævigata areas (which are immaculate ochraceous) and

the hind margin narrowly, also the anterior margin medially. Scutellum punctured except medially. Corium with three (somewhat narrowly suffused) dark rows of punctures, also extero-lateral and apical margins narrowly dark. Clavus more sparsely and obscurely punctured. Membrane immaculate hyaline. Abdomen pale reddish-ochraceous. Sterna and pleura strongly punctured fuscously, abdomen beneath only feebly so. Legs yellowish. Eyes strongly pedunculate, head wider than hind-margin of pronotum. Antennæ 14, 42, 25, 38. Last "abdominal" sternite roundly emarginate.

♀. Median line on pronotum less distinct. Last sternite angularly emarginate, medially elongately produced. Length, ♂ 5; ♀ 6 mill.

Hab.—Q.: Kuranda (Aug.; Perkins).

BOTOCUDO Kirkaldy.*

17. B. ORNATULUS (Bergroth).

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele and Perkins).

This species is a little variable in colour and pattern.

ORTHOEA Dallas, Kirkaldy.

18. O. SIDNICA, sp. nov.

Allied to *O. nigriceps* (Dallas), but narrower and more parallel-sided at the tegmina; collar more distinct, anterior area of pronotum longer, hind area proportionately wider, hind margin straight. Tegmina more deeply punctured. Fore tibiæ longer (in the male at least). Head, posterior area of pronotum, posterior three-fourths of scutellum, etc., blackish; anterior area of pronotum and anterior part of scutellum, dark red-castaneous. Tegmina brownish-yellow strongly punctured with yellow and brown; a basal band across the base, a spot on the lateral margin towards the apex, apex of corium, etc., blackish. First three

* *Botocudo* Kirk., 1904 = *Salacia* Stal, aa (restr. Dist. 1893). *Cligenes* Dist., 1893 = *Salacia* Stal, a.

segments of antennæ brownish-yellow, fourth dark fuscous. Under side blackish, prosterna, a large spot on the middle of abdomen at base, etc., dark reddish-castaneous. Legs yellowish, except a broad dark ring across fore femora, apices of segments faintly fuscous. Length, ♂ $4\frac{1}{2}$ mill.

Hab.—N.S.W.: Sydney (Feb.; Koebele).

19. *O. PACIFICA* (Stal) [= *periplanios* Kirkaldy].

Hab.—Q.: Cairns (Perkins). Also in Fiji and Hawaii.

VULTURNIA, gen.nov

I suppose that this is really allied to *Aphanus*, but I should have placed it near *Fontejus* had there been any collar.

Head triangular, declivous, but little narrower than the posterior margin of the pronotum, distinctly wider than the anterior area. Ocelli near base of head and eyes, probably scarcely functional. Pronotum with the anterior area about as long as wide, about as long as the head, subglobose, twice (or more) as long as the hind area, which is partly declivous, the posterior margin emarginate. Tegmina and abdomen medially narrowed, membrane not reaching the apex of the abdomen.

20. *V. ALBONOTATA*, sp.nov.

Black, thickly covered with short grey hair, also a few black bristles. Pronotum and scutellum closely punctured; clavus with three rows, corium with two inner and one outer row, also the apical third apex of first segment of antennæ and the fourth (3rd auctt.) ventral pleurite white. Hind angle of scutellum creamy. Basal half of tegmina opaque-testaceous, mostly infuscate; apical margin of corium broadly white (black punctures); membrane dark smoky, with a large pale fulvous spot at apex. Tarsi fuscous. Antennæ 9, 28, 23, 27. Labium reaching to about the middle coxæ, first segment not reaching the base of the head.

♂. Fore femora strongly incrassate, minutely spined; tibiæ slightly curved, not spined. Length 6 mill.; pronotal width $1\frac{1}{2}$ mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

THAUMASTOTHERIINÆ, subfam. nov.

This subfamily, which is based on a single carded specimen, is allied to the *Blissinæ* in that the fore legs are articulated on the disk of the prosternum, but the structure of the head, labium, legs, etc., puts it quite out of that subfamily. In habitus, it recalls much more the *Anthocoridae*, and even in some ways the *Polycetenidae*; but the structure of the sterna and the lack of a cuneus place it in the *Geocoridae*. I am unable to determine with surety whether it is Trochalopodous or Pagiopodous, but I think the former, in which case its Geocoridism would be confirmed. It is to be hoped that other specimens will be found, but unfortunately nothing is known of its habits.

THAUMASTOTHERIUM, gen. nov.

Flattish. Head flat, slightly declivous; juga much longer than tylus and meeting in front of it, laminately expanded anteriorly and laterally, the sides rotundately curved. Lateral margins of head, between the above and the pedicellate eyes, rounded. Head scarcely so long as its width. Eyes not quite contiguous with pronotum; ocelli contiguous with ocular peduncles, close to base of head. Antennæ about twice and one-half as long as the pronotum medianly, inserted ventrally low down, basal of the first segment of the labium, first segment not reaching to the apex of the head. Labium broad and short, reaching only to the middle of the prosternum. Bucculæ low, divergent apicalwards and very far apart, narrowing just apical of the second antennal segment, the first two apparently not free, third reaching to base of head. Pronotum behind a little wider than the head and a little wider than the fore margin, hind margin straight; impressed transversely in the middle, lateral margins fairly straight; (longitudinal) middle $\frac{3}{5}$ of anterior area flat, medially sulcate, lateral fifths swollen; hind area punctured, lateral margins swollen. Scutellum triangular, a little longer than wide, feebly keeled medially, transversely striate and punctured. Hind margin of prosternum straight, meso- and metasternum sulcate. Clavus and corium closely punctured, lateral margins of latter slightly

rounded and narrowly explanate. Membrane without apparent veins. [I have not examined the wings.] Legs all short, fore coxæ inserted on the disk of the prosternum, coxæ globular (as also the middle pair), shorter than the trochanters, femora greatly incrassate, longer than the tibiæ. Hind coxæ more elongate. Middle and hind femora incrassate, longer than their tibiæ. Tarsi minute, arolia very large, elongate, nearly as long as the claws.

21. *T. AUSTRALICUM*, sp.nov. (Pl.xliii., figs.1-3).

Ochreous. Third (except apex and base) and fourth segments of antennæ, tarsi and apex of labium, black. Eyes reddish-piceous. Tergites (except lateral margins) apparently dark fuscous, as also a part of the underside. Punctures brownish. Antennæ 3, 6, 8, 8, third and fourth segments sulcate. Length, ♂ $3\frac{1}{2}$ mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

TINGIDÆ.

SERENTHIA Spinola.

22. *S. VULTURNA*, sp.nov.

Allied to *S. gibba* (Fieber), but the pronotum is much less convex. The first segment of the antennæ is one-half longer than the second, the third is twice as long as the fourth, and four and one-half times as long as the second. The metasternum is not pale posteriorly. The pronotum is evidently, though not strongly, percurrently carinate. Pronotum black, with a pale collar anteriorly (not encroaching posteriorly at the sides), and the posterior prolongation pale. Length $2\frac{1}{8}$ mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

All the species of *Serenthia* in my collection are strongly brachypterous; the present form is less coriaceous and has a distinctly separated costal (or subcostal?) area, which is uniareolate. In these respects, this Australian species seems to approximate to *S. femoralis* Thomson, and *S. brevirostris* Yakovlev.

HYPSIPYRGIAS, gen.nov. (Pl.xliii., figs.4-5).

Somewhat allied to *Dichocysta* Champion, but with a very different pronotal structure. Head small, with a basal subporrect spine on each side laterally, one median immediately anterior, and one or two between the insertions of the antennæ. Second segment of antennæ about twice as long as the first, both short, third about ten times as long as the second and more than thrice as long as the broad fusiform fourth. Pronotum medianly very highly elevated and vesicular, truncate in profile, anteriorly acute-angled in profile, then perpendicular, the whole of the vesicle reticulate, not carinate. Lateral margin of pronotum areolately dilated, exteriorly rounded. Posterior lobe tricarinate, middle keel anteriorly lost in the big vesicle, posteriorly forming a small, elevated, areolate vesicle; the lateral keels run elevatedly by the side of the large vesicle as far as the anterior margin. Tegmina laterally rounded, widest at the level of the posterior angle of the pronotum, suddenly narrowed after the discoidal, thence continuing subparallel; discoidal area sharply limited; subcostal biareolate, becoming 3- or 4-areolate posteriorly; costal area uniareolate. Tegmina reaching far beyond abdomen.

23. H. TELAMONIDES, sp.nov.

Dark fuscous or pitchy; first three segments of the antennæ, bucculæ, legs, etc., reddish-testaceous. Pronotum dark fuscous; posterior lobe, anterior vesicle, venation, etc., yellowish. Tegmina yellow, a large fuscous spot at the apex, not, however, discolouring the veins. Length $3\frac{1}{2}$; maximum height about $1\frac{1}{2}$ mill.

Hab.—Q.: Kuranda (Aug.; Perkins).

This curious species has some little general resemblance to the American Membracid genus *Telamona* Fitch; the specific term *telamonides*, however, is not used to express this resemblance.

E P I M I X I A, gen.nov.

General appearance of *Teleonemia*, but the discoidal area is feebly marked off, and the subcostal area is multireticulate. Head with two sublateral spines near the base, and two sub-

median near the apex, all short; bucculæ prominent, anteriorly roundly acute. Antennæ slender, third segment more than twice as long as the fourth, more than five times as long as the second, and thrice and one-half as long as the first. Pronotum very convex behind, anteriorly narrowed, a small lævigata area on each side of the middle keel between the collar and the convex part; with three keels, the middle one percurrent, the lateral ones stopping anteriorly at the lævigata areas. Lateral margins rounded, not foliaceous but acutely carinate; no hood. Tegmina elongate, costal area uniareolate.

24. *E. ALITOPHROSYNE*, sp.nov.

Pronotum and tegmina very closely punctured. Head, lævigata areas, apex of tibiæ, the tarsi, underside, etc., blackish. Spines, keels, bucculæ, etc., yellowish-white. Legs red. Pronotum and tegmina yellowish, largely suffused, especially inwardly, with reddish, but not on the posterior lobe of pronotum. Length $4\frac{1}{2}$ mill.

Hab.—N. S. W.: Sydney (Jan; Koebele).

TELEONEMIA Costa.25. *T. PACIFICA*, sp.nov.

Allied to *T. pilicornis* Champion.

Reddish-ochraceous or yellowish-ferruginous (♂), yellowish (♀), bucculæ, legs and sternal keels paler; apical four-fifths of last segment of antennæ blackish. Pronotal keels yellowish, interrupted with fuscous. Tegmina yellowish; a broad ferruginous band across middle of discoidal area, reaching the costal margins (♂), a less regular fuscous band (♀); membrane, except an apical spot, ferruginous (♂), or more or less fuscous (♀). Two large porrect basal spines on the head, and one or two smaller. Third segment of antennæ thrice as long as the fourth, and ten times as long as the second, which is a trifle shorter than the first. Labium reaching to base of mesosternum. No hood, but the middle keel of pronotum percurrent. Pronotum finely and closely punctured. Tegmina with discoidal area glabrous, areoles deeply

mpressed; subcostal area biareolate, costal area uniareolate, both minutely. Length 3 mill.

Hab.—Q.: Kuranda (August; Perkins)—Fiji Islands: Rewa (April; Muir).

26. *T. VULTURNA*, sp.nov.

Black or blackish; anterior margin, lateral margins, the three discal keels, posterior angle deeply—of pronotum—bucculæ, spines, sternal keels, posterior margin of prosternum, costal area, exterior margin of discoidal area, lateral margins of membrane, etc., pale. Two rather short basal spines on head, and others still smaller. No hood, but the middle keel of the pronotum percurrent. Pronotum finely and closely punctured. Tegmina with discoidal area glabrous, areoles deeply impressed; membranal areoles somewhat larger; costal area uniareolate; subcostal area 3-areolate, widening irregularly to 4. Length $3\frac{1}{3}$ mill.

Hab.—Q.: Kuranda (Perkins).

NABIDÆ.

ALLOEORHYNCHUS Fieber.

27. *A. FLAVOLIMBATUS*, sp.nov.

Black (including the membrane which is rather, perhaps, dark smoky), the pronotum and sternites shining. Antennæ, labium, legs and a large spot at base of abdomen ventrally, brownish-yellow, the antennæ a little infuscate; a broad ring near the apex of the hind femora piceous, teeth on femora blackish. Basal half of corium laterally, basal two or three pleurites, and one or two apical spots, pale yellow.

Head and pronotum shaped differently from *A. vinulus*,* the pronotum in profile being gradually declivous, and the head perpendicular at the base. The head may be exerted, but not in repose (as erroneously figured by Distant), the eyes then touching the pronotum. The head is distinctly more elongate before the

* Judging, in this and later observations, by Distant's figure and description in 'Fauna of India.'

eyes than in *A. vinulus*. The second segment of labium is very long, reaching to the fore trochanters, the third reaching to the middle pair. Antennæ 3, 1, 5, 5, 6. The pronotal constriction is rather feeble in the middle, and the anterior area is distinctly longer than in *A. vinulus*, being about thrice as long as the hind area medianly, the latter being distinctly longer at the sides than in the middle. Femora much as in *A. vinulus*, but the fore tibiæ more widened; fore and middle femora each with a double row of about 17 teeth, tibiæ somewhat correspondingly but more bluntly toothed.

♀. Abdomen widened behind, black concolorous beneath. Length 5½ mill., width 2 mill.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

G O R P I S Stal.

28. G. CRIBRATICOLLIS Stal.

Hab.—Q.: Kuranda (August; Perkins). Also from Fiji: Rewa (Muir). Previously recorded from Ceylon, and like many other Nabidæ, probably easily introduced, so that its endemic habitat is doubtful.

A C A N T H O B R A C H Y S Fieber.

29. A. VIRESCENS, sp. nov.

Intermediate between Stal's divisions *a* and *aa* (of *Arbela*), in that the hind area of the pronotum is distinctly and rather densely punctured, scarcely so, however, on the declivous hind margin, while there is no median pale line.

Head: first segment of antennæ, labium, and underside pale ochraceous or testaceous, probably greenish in life; rest of antennæ dark fuscous. Pronotum pale light green, hind margin infuscate, as also scutellum. Tegmina fuscous, lateral margins greenish-yellow. Legs greenish or greenish-testaceous, third segment of tarsi and the knees fuscous. Abdomen above sanguineous, except the lateral margins and the apical segment. First segment of the antennæ about twice and one-half as long as the head, subequal to second segment. Labium reaching to the middle coxæ, second

segment nearly reaching to base of prosternum, distinctly longer than the third. Length 6 mill.

♀. Hind tibiæ not clavate basally.

Hab.—Q.: Kuranda (Aug.; Perkins).

REDUVIIDÆ.

PTILOCNEMIDIA Kirkaldy.

30. P. PLUMIFER (Horvath).

Hab.—Q.: Brisbane (June; Perkins); previously recorded from Rockhampton, and from New South Wales.

GERRIDÆ.

RHAGOVELIA Mayr.

31. R. AUSTRALICA, sp. nov.

Apterous ♀. Head blackish-brown, a large roundly trifid mark at the base, and the apical margin in front of the eyes, yellowish-brown. Pronotum blackish-brown; the anterior margin broadly, a narrow line down the middle, and the hind margin broadly, yellowish-brown. Metanotum yellowish-brown, except the anterior margin narrowly and a median spot. Sterna and pleuræ yellowish-brown, with blackish-brown incisures, &c. Antennæ blackish-brown, except the yellowish-brown basal third of the first segment. Labium yellowish-brown, apex blackish-brown. Legs blackish-brown; ambulacra, coxæ, trochanters (except apical margin), basal half of fore femora, base of hind femora, &c., yellowish-brown.

Subfusiform; head much narrower than the pronotum, which is narrower than the metanotum; vertex triangular with truncate apex. Antennæ 10, 7, 6, 5. Labium reaching just beyond fore coxæ. Pronotum roundly hexagonal. Mesosternum obliquely ridged on each side, the keels almost contiguous apically, somewhat as in *R. peggivæ*. Middle tibia about as long as the subequal tarsal segments. Hind femora strongly incrassate, dentate,

tibiæ very slightly curved. Pleurites subvertical, narrowing in posteriorly. Length $4\frac{1}{8}$ mill.

Hab.—Q.: Kuranda (Aug.; Perkins).

ANTHOCORIDÆ.

TRIPHLEPS Fieber.

32. T. PERSEQUENS F. B. White.

Hab.—Queensland (Perkins); also Fiji (Muir). Previously known only from the Hawaiian Islands, into which it was an introduction.

CLINOCORIDÆ.

CLINOCORIS Fallén.

33. C. LECTULARIUS (Linné).

Hab.—Q.: Kuranda (Perkins).

MIRIDÆ.

EUROCRYPHA, gen.nov.

Differs from *Isometopus* Fieber, by the much smaller head, which, however, extends laterally and posteriorly beneath; and by the different antennæ.

Ovate, closely and minutely punctured. Head perpendicular, much narrower than the pronotum anteriorly, lateral margins beneath lobate, produced posteriorly, visible dorsally as a spine on each side behind the eyes. First three segments of antennæ apparently very short, fourth incrassate, extending as far as the base of the pronotum, five or six times as long as thick. Pronotum as in *Nesocrypha*; mesonotum bilobate, biemarginate. Tegmina as in *Nesocrypha*, but clavus narrowed posteriorly, and scutellum touching the base of the membrane (the latter destroyed). Tegmina hairy and declivous, as in *Nesocrypha*. Hind femora apparently not strongly incrassate.

34. E. THANATOCHLAMYS, sp.nov.

Blackish. Eyes reddish-pitchy, ocelli dark rubid. Posterior angle of scutellum sanguineous. Tegmina brownish-pitchy. Last

segment of antennæ brownish-yellow. Length $2\frac{1}{4}$ mill., to apex of cuneus.

Hab.—Q.: Bundaberg (Sept.-Dec.; Koebele).

CYSTEORRHACHA, gen.nov.

A genus of the *Bryocorini*. Pilose and lightly punctured. Vertex transverse, a little wider than an eye, deeply sulcate; with eyes, twice and one-fourth as wide as long. Head vertical before the eyes, which do not touch the pronotum. Rostrum reaching to (or beyond?) the middle coxæ. Second segment of antennæ more than twice as long as the thicker first, one-third longer than the third (fourth broken). Pronotum basally twice and one-half as wide as anteriorly and about one-half wider than the head; three-fourths wider basally than the length, twice as long as the head; constricted about the middle, widening posteriorly, basal margin emarginate; a distinct collar. Posterior half of scutellum elevated and swollen, curving cystiformly forward over the basal lobe of the pronotum, biconstricted, with a small, erect, dorsal spine, in front of the anterior constriction. Tegmina without a median vein, cuneus acute posteriorly, (membrane destroyed). Hind tarsi with the third segment as long as the other two in profile, second a little more than half the length of the first; arolia long and narrow, curved outwards and inwards, three-fourths the length of the curved claws, from which they are separated.

35. C. CACTIFERA, sp.nov. (Pl. xliii., figs.6-7).

Dull ferrugino-fuscous, partly suffused with sanguineous. First segment of antennæ yellow, apically reddish, second and third dark sanguineo-fuscous. Postero-lateral angles of pronotum rather widely fuscous, the hind margin very narrowly pale. Sterna and abdomen dark sanguineous. Tegmina hyaline, a large spot at base and a broad median band, fuscous; apical margin of corium broadly dark sanguineous; cuneus opaque white, posterior angle dark sanguineous. Wings hyaline. Legs dark

sanguineous, femora basally pale, fore and middle tibiæ pallidly annulated near the apex, hind tibiæ apically pale.

♀. Length to apex of cuneus, 5 mill.

Hab.—Queensland (Aug.; Perkins).

HELOPELTIS Signoret.

36. H. AUSTRALIE, sp. nov.

♂. Head and apical third of abdomen shining black; ocular orbits, clypeus, labium (except apex), underside of head, sterna, etc., pale yellowish. First segment of antennæ piceous, apex red-brown, second and third black (fourth absent). Pronotum and scutellum yellowish-orange, disk of the former redder, horn fuscous. Tegmina dark cinereous-hyaline, exterior margin, veins and apical margin of corium olivaceous. Coxæ yellowish, rest of legs olivaceo-testaceous, femora annulated with olivaceous. Abdomen basally pale fuscous. Head and eyes nearly as wide as the hind margin of the pronotum. Second segment of antennæ one-half longer than the first and about one-seventh longer than the third. Labium about three-fourths of the length of the first segment of the antennæ, reaching nearly to hind coxæ. Horn about three-seventh of the length of the first segment of the antennæ, straight, evenly cylindrical right up to the capitate apex, apparently erect (but partly broken at the base and lying on its side). Length 6 mill.

Hab.—Q.: Kuranda (Aug.; Perkins).

SYNTHLIPSIS, gen. nov.

Belongs to the *Capsini*, but has no close relations.

Eyes slightly pedicellate, raised distinctly about the level of the vertex, subcontiguous to collar. Vertex longitudinally sulcate, with eyes not so wide as the pronotum behind. Second segment of antennæ elongate, flattened and widened gradually from the middle to the apex, which is narrowly rounded. Pronotum constricted strongly, a trifle in front of the middle, base of anterior area slightly narrower than the apical margin; lateral

margins of hind area divergent; hind margins a little sinuate. Cuneus elongate. Membrane with two cells, the inner almost oblong, obliquely truncate apically.

37. *S. CHAMBERSI*, sp.nov. (Pl.xliii., fig.8).

Shining orange-red; legs, etc., paler. Eyes blackish. Antennæ dark reddish-fuscous. Membrane hyaline, apically smoky, veins scarcely red. Wing-veins pale fuscous. Abdomen dark blood-red. Hind tibiæ with three pale fuscous rings. Head, pronotum, and scutellum not punctured. Antennæ 25, 100, 25, 23, the first segment half as long as the width of the pronotum apically. Hindmargin of pronotum three-fifths longer than the apical margin. Length 6 mill.

Hab.—Q.: Kuranda (Aug.; Perkins); one female in poor condition.

I have pleasure in naming this after Mr. W. E. Chambers, who has adorned my recent memoirs with many fine drawings.

PARACALOCORIS Distant.

38. *P. AUSTRINUS*, sp.nov.

- Ochreous-brown, with pale golden-yellow pubescence. Head with a black impression just basal of the antennal insertions. First segment of the antennæ dark reddish-fuscous, second ochreous-fuscous with the apical half blackish, third dark fuscous with the base pale ochreous. Labium pale ochreous-fuscous, third segment and apex of the fourth blackish. Collar narrowly margined posteriorly with black. Pronotum with two pale smoky-fuscous broad bands down the middle of the hind area. The transversely impressed line on the scutellum blackish, anterolateral angles broadly pale smoky-fuscous. Corium mostly suffused with pale smoky-fuscous; cuneus subsanguineous, apical margin smoky. Commissural margin narrowly blackish. Membrane hyaline, apical margin irregularly dark smoky; veins blackish, apical angle of the inner cell suffused. Mesopleuræ each with a large blackish spot; underside generally more or less

suffused with fuscous, or with fuscous lateral markings. Legs brownish, obscurely ringed with testaceous. Antennæ 58, 100, 25 (?), first segment flattened and ovally widened, second elongately clavate. Anterior impressions of pronotum small; two spots on hind areas scarcely impressed. Length, ♀, about $5\frac{3}{4}$ mill.

Hab.—Q.: Kuranda (Aug; Perkins).

NAUCORIDÆ.

OCHTERUS Latreille.

39. O. MARGINATA (Latr.)

Hab.—Q.: Kuranda (Perkins). The nymph.

CORIXIDÆ.

MICRONECTA Kirkaldy.

40. M. ANNÆ Kirkaldy var. PALLIDA nov.

No transverse line on pronotum; tegmina with a pale castaneous basal band.

Hab.—Q.: Kuranda (Aug.; Perkins).

41. M. MICRA, sp. nov.

Pale brown, brownish-testaceous beneath; a pale castaneous band at the base of the tegmina, lateral margins with one or two dark specks. Abdomen above partly dark. Head well rounded in front of eyes, which are practically contiguous with the corium. Pronotum very short, narrower than the head, *hind margin truncate*. Length 2 mill.

Hab.—Q.: Kuranda (Aug; Perkins).

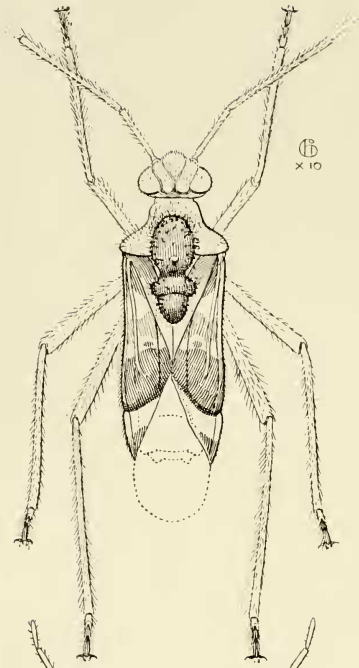
EXPLANATION OF PLATE XLIII.

Figs. 1-3.—*Thaumastotherium australicum*, gen. et sp. nov.

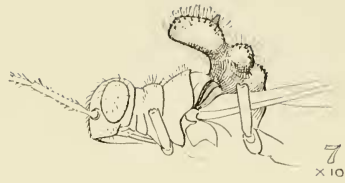
Figs. 4-5.—*Hypsiptyrgias telamonides* gen. et sp. nov.

Figs. 6-7.—*Cysteorrhacha cactifera*, gen. et sp. nov.

Fig. 8.—*Synthlipsis chambersi*, gen. et sp. nov.



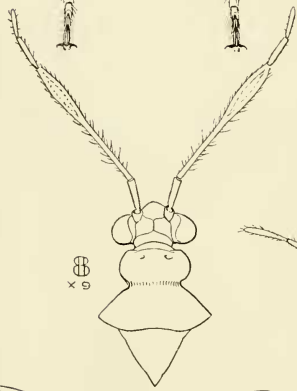
6
x 10



7
x 10



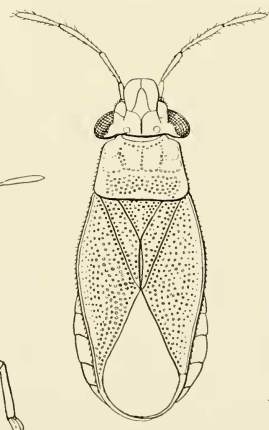
4
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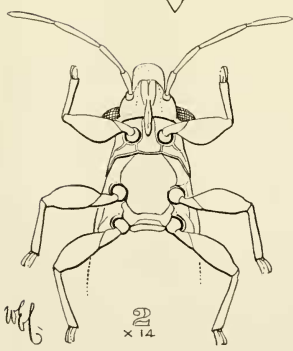
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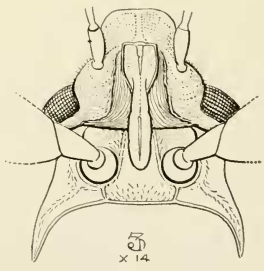
5
x 14



1
x 14



2
x 14



3
x 14

1-3. THAUMASTOCORIS (THAUMASTOTHERIUM IN THE TEXT) AUSTRALICUS, GEN. ET SP. N.
 4-5. HYPSPYRGIAS TELAMONIDES, GEN. ET SP. N. 6-7. CYSTEORRHACA CACTIFERA, GEN. ET SP. N.
 8. SYNTHLIPSIS CHAMBERSI, GEN. ET SP. N.